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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,741	10/30/2003	Saburou Kitano	2936-0201P	6172

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EXAMINER
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BERHANE, ADOLF D

ART UNIT	PAPER NUMBER
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2838

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/695,741	KITANO, SABUROU	
	<b>Examiner</b>	<b>Art Unit</b>	
	Adolf Berhane	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-18 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 10/30/03.
- 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Information Disclosure Statement*

The examiner has considered the information disclosure statement (IDS) submitted on

10/30/03 ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-4, 7, 9, 11 and 12 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's admitted prior art.

Applicant's admitted prior art disclose a switching power supply in Fig. 10. A switching power supply apparatus having a serial circuit, including a primary coil (6a) of a transformer (6) and a main switching device (7), connected between a positive (L3) and a negative power (L4) supply line connected to direct-current power produced from commercially distributed alternating-current power (1 and 3), the switching power supply apparatus outputting a direct-current voltage obtained by rectifying (4) and smoothing a high-frequency voltage (3) induced in a secondary coil (6b) of the transformer (6) by the main switching device (7) performing switching operation, a constant current circuit (15)

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that feeds a constant current to a switching control circuit (14) for controlling the main switching device (7) even when an alternating-current voltage of the commercially distributed alternating-current power varies, the detection information from the voltage detection circuit (12) is fed to the switching control circuit (14) through a photodiode (13a) of a photocoupler (13) which is connected in series with the voltage detection circuit between the positive (L5) and negative (L6) output lines and through a phototransistor (13b) of the photocoupler (13) which is connected to the switching control circuit.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5, 6 and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Sato (4,156,273).

Applicant's admitted prior art disclose the claimed invention except for the constant circuit, which includes a transistor, resistor and zener diode. Sato teaches the use of constant circuit with a transistor, resistor and zener diode. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the claimed constant circuit as taught by Sato in Applicant's admitted prior art switching power supply in order to provide current limiting and under voltage protection.

***Allowable Subject Matter***

6. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art of record disclose or teach a switching power supply apparatus with rectifier circuit composed of bridge diodes, the constant current circuit includes a serial circuit, composed of a Zener diode and a plurality of resistors, connected between the negative power supply line and one of nodes between a plurality of discharge resistors connected serially between both ends of the commercially distributed alternating-current power, a serial circuit composed of a resistor and a reverse current prevention diode is connected between the node between the resistors and the Zener diode and the operating power for the switching control circuit, and the oscillation frequency varying circuit varies the oscillation frequency of the switching control circuit by using as a drive signal a parabolic voltage produced by a capacitor connected between one of supply line nodes between the resistors and the negative power.


***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ogino et al. disclose a frequency inverter. Balakirshnan et al. disclose an off-line converter with integrated soft start and frequency jitter. Turner discloses power supply circuit for a control circuit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adolf Berhane whose telephone number is 571-272-2077. The examiner can normally be reached on Monday- Friday 8 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Adolf Berhane  
Primary Examiner  
Art Unit 2838